

of the wound to the nerve centers, or delay in the administration of the treatment.

The treatment is described in N. N. R. (A. M. A.); as—"An emulsion of the cords of rabbits that have died as a result of the subdural injection of fixed rabies virus. The fixed virus is obtained by passage of rabies virus through a long series of rabbits until the animals die after a uniform period of incubation; this period may vary according to the strain of virus. The cords are removed from the rabbits and, as a rule, dried over potassium hydroxide for a period of from two to fifteen days.

"Antirabic vaccine is used for the preventive treatment of rabies. Emulsions of the cords are prepared with broth or saline solution and injected subcutaneously. The 'scheme of dosage' varies according to circumstances, but the general principle consists in daily injections, beginning with an emulsion of a cord dried for from 8 to 14 days, and gradually increasing until a 'two-day' cord is used." The fixed virus in general use is of the strain employed by the U. S. Hygienic Laboratory, Washington, D. C.

The treatment may be "mild," "medium," or "intensive," according to the location and severity of the bite. It includes the administration of from 21 to 25 injections, covering a period of 18 to 22 days. Beginning with an emulsion of cord that is only slightly virulent, the patient is inoculated daily with increasing strengths of the virus until his system has reacted to such a degree that it can withstand the stronger virus, and immunity is produced.

As prepared for administration, each section of cord of the requisite attenuation or virulence, is ground up with the aid of diluted glycerin, into an "emulsion" which is transferred to a small vial fitted with a rubber stopper. The vials are numbered consecutively and the doses given in the order in which they are numbered. As generally supplied, a syringe containing sterile salt solution accompanies each dose. The syringe is connected with the vial by passing the needle through the rubber stopper, the two liquids are mixed by passing them back and forth, and the vaccine is finally drawn into the syringe and is ready for use. The product is perishable and must be kept cool. Much care must be exercised in handling, especially the latter doses. As soon as the glass containers are emptied they should be boiled or otherwise disinfected.

The first day's treatment consists of three doses, given four or six hours apart; the second day, two doses are supplied, and the subsequent doses are given one each day until twenty-five doses have been administered. The site usually selected for injection is the subcutaneous tissue of the anterior abdominal wall. The site is prepared with alcohol and sterile cotton, and no after dressing is required. Some slight local reaction may follow the puncture.

Rabies is one of the most preventable of diseases. The enforcement of proper dog laws—the licensing and muzzling of dogs; the destruction or confinement of stray, ownerless animals; the strict enforcement of a six-months' quarantine on all dogs brought into the community, would practically eliminate the scourge.

The writer would express his indebtedness to the following, for much of the material contained in this paper:

The History, Prevalence and Prevention of Rabies and Its Relation to Animal Experimentation, by Langdon Frothingham, M. D. V. (Defense of Research Pamphlet No. 7; A. M. A.)

History of Rabies in Southern California, Stanley P. Black, M. D., and L. M. Powers, M. D., Los Angeles. (Cal. State Jour. Med., Vol. 8, Nov., 1910.)

Rabies in California, W. A. Sawyer, M. D., Berkeley, Cal. (Cal. State Jour. Med., Vol. 9, July, 1911.)

Rabies in a Human Being, with Post-Mortem, Henry Hanson, A. B., M. D., Jacksonville, Fla. (Jour. A. M. A., Vol. 57, No. 26.)

The Pasteur Treatment for the Prevention of Rabies. (Dr. H. M. Alexander Co., Marietta, Penn.)

Laboratory Procedure; The Cutter Laboratory, Berkeley, California.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of January the following meetings were held:

Medical Section, January 2, 1912.

1—Macroscopic Invisible Carcinosis of the Meninges. Dr. W. F. Beerman. Discussed by Dr. Milton B. Lennon. (This paper will appear in J. A. M. A.)

2—The Value of Much Granules and the Antiformin Method in determining the Etiology of so-called Tuberculides with special reference to Lupus Erythematosus. Dr. David Friedlander. Discussed by Dr. René Bine and Dr. David Friedlander. (This paper will appear in the British Medical Journal.)

General Section, January 9, 1912.

1—Treatment of Severe Cases of Diabetes. Dr. Emile Schmoll. Discussed by Dr. Clarence Quinan, Prof. M. E. Jaffa, Dr. René Bine, Dr. C. G. Levison, Dr. W. S. Franklin, Dr. Emile Schmoll. (This paper is to be printed in J. A. M. A.)

2—Angio-Neurotic Edema: A Series of Cases with Clinical Observations. Dr. Harry I. Wiel. Discussed by Dr. Harry E. Alderson, Dr. Emile Schmoll, Dr. Harry I. Wiel.

Section on Surgery, January 16, 1912.

1—Demonstration with the Oesophagoscope of a Case of Carcinoma of the Oesophagus. Dr. Julius Rosenstirn.

2—Treatment of Carcinoma of the Cervical Lymphatics. Dr. Raymond Russ. Discussed by Dr. H. A. L. Ryfkogel, Dr. J. Henry Barbat, Dr. Emmet Rixford, Dr. Raymond Russ.

3—Retrocecal Appendicitis. Dr. C. G. Levison. Discussed by Dr. Emmet Rixford, Dr. A. Newman, Dr. Julius Rosenstirn, Dr. J. Henry Barbat, Dr. C. G. Levison. (This paper will be published in the Annals of Surgery.)

Eye, Ear, Nose and Throat Section, January 23, 1912.

1—Report of a Case of Sinus Thrombosis Due to Welch Gas Bacillus. Dr. E. D. Shortlidge.

2—Demonstration of a Case. Dr. Cullen F. Welty.

3—Rational Surgery of Retro-Bulbar Neoplasms, with relation of a Case of Cylindroma of the Orbit, extirpation of same and preservation of the Eye. (Illustrated with lantern projections.) Dr. P. de Obarri. Discussed by Dr. Wm. F. Blake, Dr. Vard Hulen, Dr. P. D. Obarri.

Section on Urology, January 30, 1912.

1—Periurethral Complications of Stricture. Dr. M. Silverberg. Discussed by Dr. A. B. Grosse, Dr. W. P. Willard, Dr. R. L. Rigdon, Dr. M. Silverberg. (This paper to be published in J. A. M. A.)

2—Presentation of Case. Dr. M. Krotoszyner. Discussed by Dr. M. Silverberg, Dr. Henry Meyer, Dr. R. L. Rigdon, Dr. M. Krotoszyner.

3—Presentation of X-Ray Plates. Dr. R. L. Rigdon.

4—Demonstration of Specimen of Prostate. Dr. Henry Meyer.

5—Demonstrate of Specimens of Bladder Tumors. Dr. M. Krotoszyner.

CALIFORNIA ACADEMY OF MEDICINE.

The California Academy of Medicine held its regular meeting on January 29, 1912, in the Library of the San Francisco County Medical Society.

Scientific program was as follows:

1—Differentiation of Influenzal and Septicaemic Meningitis. Dr. J. G. Fitzgerald. Discussed by H. C. Moffitt, G. E. Ebright and J. G. Fitzgerald.

2—Osteoplastic Carcinoma. Dr. A. L. Fisher. Discussed by Dr. Rusk, Dr. Stillman, Dr. Dickson, Dr. Eloesser, Dr. Russ, Dr. Moffitt, Dr. Ryfkogel and Dr. Fisher.

3—Demonstration of Fibromata of the Cervix. Dr. H. J. Kreutzmann.

A. W. Hewlett, Rupert Blue, G. W. McCoy, Alonzo Taylor, W. E. Garry and Geo. Blumer were unanimously elected to honorary membership. Sterling Bunnell was unanimously elected to regular membership.

Refreshments were served at the close of the meeting.

COOPER COLLEGE SCIENCE CLUB.

The Cooper College Science Club held its regular monthly meeting on February 5, 1912, at which the following scientific program was given:

1—A Case of Cancer of the Uterus. Dr. F. P. Topping. Discussed by Dr. Chester J. Teass and Dr. F. P. Topping.

2—Grafts. Dr. Dudley Tait. Discussed by Dr. Leo Eloesser, Dr. H. B. Graham, Dr. G. H. Taubles, Dr. Dudley Tait.

3—Cutaneous Reactions. Dr. Ernest D. Chipman. The name of this society has been changed to that of the Cooper Clinical Society.

Refreshments were served at the close of the program.

SAN DIEGO COUNTY.

Dr. T. W. Huntington, President of the State Medical Society, was the guest of the San Diego County Medical Society at a dinner given January 18th at the Palace Cafe in San Diego. About fifty members were present. Dr. Huntington talked on the need of public lectures to the laity along preventive medical lines.

B. J. O'NEILL, Secretary.

SOLANO COUNTY.

Whereas, United States Senator Works of Los Angeles, Cal., has seen fit to air his personal and family troubles in the Senate chamber of the United States, in support of a cult of drugless healing and in depreciation of the medical profession at large and certain members thereof in particular whose names he refuses to make public, and

Whereas, The medical profession stands for the highest type of citizenship and scientific attainment; be it

Resolved, That the Solano County Medical Society does hereby protest against the use and prestige of the Senate of the United States of America for the furtherance of any cult or system of healing, drugless or otherwise, and that a copy of this resolution be spread upon the minutes of this society and a copy sent to the California State Medical Journal.

A. V. DORAN, Secretary.

BOOK REVIEWS

Infections of the Hand. By Allen B. Kanavel; 8vo, linen, pp. 447 and xiii. Lea & Febiger, Philadelphia and New York, 1912; price not stated.

A good book, containing thorough anatomical studies and sound clinical views and deductions. Of much practical import is the author's work on the anatomy of the tendon-sheaths, the bursae and the fascial spaces of the hand, with original plates

based on injections and X-Rays. Valuable, as giving a clear oversight, are his diagrams of the various paths by which infections may spread over the hand.

The book is evidently intended as a work of reference; a good index aids in the finding of the anatomy, pathology and treatment of the particular lesion to which reference is desired. The subject-matter is of such importance, however, and the author's studies so thorough, that with a little rearrangement of the contents the work might be remodeled from a reference-book for the excerpting of isolated chapters to one that would be of sustained interest from cover to cover. Ready study of the valuable plates of serial cross-sections of the hand is made impossible by the use of the antiquated letter-system for designating the various structures. Instead of printing in each plate full names with lines or arrows pointing to the parts designated, a system of letters (and, worst of all, cross-references) indicates the different details. Anatomical reading is difficult enough;—to have to cross and hunt and turn back again over several pages in order to ascertain that dots labeled EPTP, ESIP, etc., have nowhere an explanation of their mystic symbols, is indeed harrowing.

I hope that these deficiencies in the technical make-up of the book may be corrected in the many subsequent editions that it deserves; they do not at all deduct from its intrinsic value. Kanavel's work is worth buying and studying by every surgeon and by every general practitioner. L. E.

Scientific Feature of Modern Medicine. By Fred-eric S. Lee, Ph. D. Published by the Columbia University Press, New York, 1911.

This volume of 176 pages is a reproduction of eight lectures delivered by Prof. Lee in New York City. The lectures were delivered to what was at least in part, a lay audience and were illustrated by figures, charts, etc., that, the author states, have been found impracticable to reproduce. This rather detracts from the value of the book for the layman. Also the book should have a glossary.

It is unfortunate that chapters one and two should be the driest reading to the layman and the hardest for him to understand.

It is to be hoped, however, that the book will be read by those for whom it is intended for it is only by extension of knowledge of what medicine really is and what it can and cannot do, that quackery and charlatanism can be overcome, and though the author occasionally carries an idea a little far, still in the main the book is one that can be recommended by the profession to the layman who wishes to know something concerning scientific progress in medicine. A. L. F.

An Anatomical and Surgical Study of Fractures of the Lower End of the Humerus. By Astley Paston Cooper Ashhurst, A. B., M. D. 8vo. Linen. Pages 163. Lea & Febiger, Philadelphia and New York, 1910. Price not stated.

A careful study with many interesting X-ray plates. Ashhurst treats all his patients by the hyperextension method; he has secured perfect results (i. e., no limitation of motion and normal carrying angle at the elbow) in 81% of his cases. This, when compared with the 18-25% of perfect cures attained by other surgeons, surely repays the care and detail with which he has studied these fractures. König and others have recently shown that the remote results of fractures at the elbow may not be as bad as would appear from most statistics. Reabsorption of bone and the adaption of structure to function make the remote prognosis of children's fractures more favorable than it might seem from the status immediately after discharge from treatment. However this may be, Ashhurst has succeeded in showing that the gloomy prognosis generally accorded fractures at the elbow,